



Volume 2 (Cover B)

(Price Schedule)

**The Superintending Engineer
Tamil Nadu Urban Habitat Development Board
West Circle Coimbatore
Selvapuram,
Shivalaya Mahal (opp),
Perur North, Coimbatore – 26.**

TAMILNADU URBAN HABITAT DEVELOPMENT BOARD

TENDER NOTICE

Number of Pages in the tender Schedule **40 (Forty Only)**

Number of Items in the tender Schedule **25 (Twenty five Only)**

Tenders will be received by the Superintending Engineer, West Circle Coimbatore at his office up to 3.00 p.m. on **03.08.2022** for the work of **“Supplying and fixing Fire fighting and lightening arrester arrangements for the work of Construction of 504 nos of tenements at Allikuttai Eri in Salem District under HFA-AHP”**

The tender should be in the prescribed form obtainable from the Superintending Engineer's / Executive Engineer's Office. The tenders will be opened by the Superintending Engineer, West Circle Coimbatore at the place and on the date aforementioned. The tenderers or their agents are expected to be present at the time of opening tenders. The tender receiving officer will on opening each tender prepare a statement of the attested and unattested corrections therein and hand it over to the tenderers concerned and initial all such corrections in the presence of the tenderer. If any of the tenderers or their agents find it inconvenient to be present at the time, then, in such a case, the tender receiving officer, will on opening the tender of the absentee tenderer make out a statement of the unattested corrections and communicated to him. The absentee tenderer shall then accept the statement of corrections without any question whatsoever.

2. Tenders must be submitted in sealed covers and should be addressed to the Superintending Engineer / Executive Engineer, Tamil Nadu Urban Habitat Development Board, the name of the tenderer and the name of the work being noted on the cover.

If the tender is made by an individual it shall be signed with his full name and his address shall be given. If it is made by a member of the firm, it shall be signed with the co-partnership name by a member of the firm who shall also sign his own name, and the name and address of each member of the firm shall be given. If the tender is made by a corporation, it shall be signed by a duly authorized officer, who shall produce with his tender, satisfactory evidence of his authorization. Such tendering corporation, may be required, before the contract is executed, to furnish evidence of its corporative existence.

3. Each tenderer must also send a certificate of income-tax authority in the form prescribed thereof. This certificate will be valid for one year from the date of issue for all tenders during the period.

In the case of proprietary and partnership firm it will be necessary to produce the certificate aforementioned for the proprietors and each of the partners as the case may be.

If the tenderer is a registered TNUHDB. Contractor and if a certificate for the current year had already been produced by him during the calender year in which the tender is made it will be sufficient if particulars regarding the previous occasion which the said certificate was produced are given.

Tenders received without a certificate as aforementioned will be summarily rejected.

4. Each tenderer must pay, as earnest money, a sum of **Rupees. 32,000/- (Rupees Thirty two thousand only)** into as per CSII within the jurisdiction of the Executive Engineer concerned to the credit of Tamil Nadu Urban Habitat Development Board under deposit and advance account on behalf of The **Executive Engineer, TNUHDB, Salem Division, Salem** and enclose with his tender and chalan enclosed accordingly. This earnest money will be refunded to the unsuccessful tenderer on application after intimation is sent of rejection of the tender or at the expiration of three months from the date of tender, whichever is earlier. This refund will be authorized by the Executive Engineer by suitable endorsement on the chalan. The earnest money will not be received in cash or currency notes.

Contractor

No of corrections

Superintending Engineer

The earnest money will be retained in the case of the successful tenderer and will not carry any interest. It will be dealt with as provided in the tender.

Alternatively the E.M.D. to the required value will be accepted in any one of these forms.

1. Crossed demand draft from any Nationalised (or) Scheduled Bank into the Account of the Executive Engineer, Tamil Nadu Urban Habitat Development Board concerned.

2. Deposit receipt of Schedule Banks :

3. State Government Securities, Madras State Electricity Board Loan Bonds, National Defence Certificates, at 5% below market value or face value whichever is less will also be accepted.

4. When a tender is to be accepted, the tenderer whose tender is under consideration shall attend the Superintending Engineer's / Executive Engineer's office before the end of the period specified by written intimation to him. If the tenderer fails to attend the Division / Circle Office before the end of the period specified, his tender will not be considered. He shall forthwith upon intimation being given to him by the Superintending Engineer / Executive Engineer of acceptance of his tender make a security deposit (which will be informed later) and sign an agreement in the proper departmental form for the due fulfillment of the contract. This security deposit together with the earnest money and the amount withheld according to clause 68 of the Standard Preliminary Specification of the Tamilnadu Detailed Standard Specifications shall be retained as security for the due fulfillment of his contract. If a cash security deposit is made by the contractor he shall follow the procedure laid down on the proceeding paragraph for payment of earnest money and such deposit will not bear interest. Failure to enter into the required agreement or to make the security deposit as defined in this paragraph shall entail forfeiture of the earnest money. The written agreement to be entered into between the contractor and the Tamil Nadu Urban Habitat Development Board shall be the foundation of the rights of both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by the contractor and then by the proper officer authorized to enter into contract on behalf of Tamil Nadu Urban Habitat Development Board.

5. The tenderer shall examine closely the Tamil Nadu Detailed Standard Specifications and also the standard preliminary specifications contained therein and sign the Divisional officer copy of the Tamil Nadu Detailed Standard Specifications and its addenda volume in token of such study before submitting his tender unit rates which shall be for finished work in site. He shall also carefully study the drawings and additional specifications, and all documents which form part of the agreement to be entered into by the accepted tenderer. The Tamil Nadu Detailed Standard Specifications and other documents connected with the contract such as specifications, plans descriptive specifications sheet regarding materials etc., can be seen at any time during working hours on office days in the office of the **Superintending Engineer, Coimbatore Circle, Selvapuram, Shivalaya Mahal (opp), Perur North, Coimbatore – 26.** A copy of the set of contract documents can also be had on payment of **Rs.17,700/-** for each set, which will not be refunded on any account.

6. The tenderer's attention is directed to the requirements for materials under the clause "Materials and Workmanship" in the "Preliminary Specification" materials conforming to the Indian Standard Specifications shall be used on the work and the tenderer shall quote his rates accordingly.

7. Every tenderer is expected, before quoting his rates to inspect the site of the proposed work. He should also inspect the quarries and satisfy himself about the quality and availability of materials. The name of quarries, kilns, etc., where from certain materials are to be obtained will be given in the descriptive specification sheet. The best class of materials to be obtained from the quarries or other source defined shall be used on the work. In every case the materials must comply with the relevant standard specification samples of materials as called for in Standard Specification, or in this tender notice, as required by the Executive Engineer in any case shall be submitted for the Executive Engineer's approval before the supply at site of work begun. If the contractor, after examination of the

Contractor

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source of materials defined in the Descriptive Specification sheet, is of opinion the materials complying with the standard or other specification of the contract cannot be obtained in quality or sufficient from the source defined in the Descriptive Specification sheet, he shall so state clearly in this tender and state when from he intends to obtain materials subject to the approval of the Superintending Engineer / Executive Engineer.

Name of work	To be struck out if such copies are not to be issued for sale
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The Slum Clearance Board will not, however, after acceptance of a contract rate pay any extra charges for lead of for any, other reason, in case the contractor is found later on to have misjudged the materials available. Attention of the contractor is directed to the standard "Preliminary Specification" regarding payment of seigniorage toll etc.,

8. The tenderer's particular attention is drawn to the sections and clauses in the standard "Preliminary Specification" dealing with.

- (1) Test inspection and rejection of defective materials and work.
- (2) Carriage.
- (3) Construction plant.
- (4) Water and Lighting.
- (5) Cleaning up during progress and for delivery.
- (6) Accident.
- (7) Delays.
- (8) Particulars of payment.

The tenderer should closely peruse all the specification clauses which govern the rates which he is tendering.

(9) A schedule of quantities accompanies this tender notice. It shall be definitely understood that the Executive Engineers does not accept any responsibility for the correctness or completeness of this schedule and that this schedule is liable to alterations by omissions, deductions or additions at the discretion of the Executive Engineer.

Division or as set forth in the conditions of contract, the tenderer will however, have his lump-sum tender on this schedule of quantities. He should quote specific rates for each item in the schedule, and the rates

should be in rupee and paise.....The rates should be written both in words and figures and the units in words. The tenderer should also show the total of each item and grand total of the whole contract and quote in the tender a lump-sum for which he will undertake to do the whole work subject to the condition of the contract, such lump-sum tender shall be written legibly and free from erasures, over writings or conversations of figures. Corrections, where unavoidable should be made by crossing out, initialing, dating and re-writing.

10. Tenders offering a percentage deduction from or increase on the estimate amount and those not submitted in proper form or due item will be rejected. Rates or lump-sum amounts for items not called for shall not be included in the tender. No alteration which made by the tenderer in the contract from the conditions of contract, the drawings, specifications, or quantities accompanying the same will be recognized, and if any such alterations are made, the tender will be void.

11. The tenderer should work out his own rates without reference being made to the Public Works Department current schedule of rates or to the Slum Clearance Board estimate rates which are not open for inspection by tenderers.

Contractor

No of corrections

Superintending Engineer

12. The price at which and the source from which certain particular materials shall be obtained by the contractor are given at the end of the schedule accompanying the tender form. Tenderers must accept the materials at these prices, and shall quote their price for finished work accordingly.
13. The attention of the tenderers is directed to the contract requirements as to the time of beginning work, the rate of progress and the dates for the completion of the whole work and its several parts. The following rate of progress and of proportionate value of work done from time to time, as indicated by the Executive Engineer's certificates of the value of work done, will be required. Date of commencement of this programme will be the date on which the site (or premises) is handed over to the contractor.

Period after date of commencement (1)	Percentage of work completed (Based on contract lump-sum amount) (2)	Period after date of commencement (1)	Percentage of work completed (Based on contract lump-sum amount) (2)
1st Month	50.00%	10th Month	----
2nd Month	25.00%	11th Month	----
3rd Month	25.00%	12th Month	----
4th Month	----	13th Month	----
5th Month	----	14th Month	----
6th Month	----	15th Month	----
7th Month	----	16th Month	----
8th Month	----	17th Month	----
9th Month	----	18th Month	----

14. No part of the contract shall be sublet without written permission of the Executive Engineer nor shall transfer be made by the power of attorney authorising others to receive payment on the contractor's behalf.

15. If further necessary information is required, the Executive Engineer of the Division will furnish such, but it must be clearly understood that tenders must be received in order, and according to instructions.

16. The Superintending Engineer / Executive Engineer reserves the right to reject any tender or all the tenders without assigning any reason therefor.

17. The tenderers, who are themselves not professionally qualified or whether they undertake to employ technical men at their cost to look after the work, should state in clear terms whether they are professionally qualified or whether they undertake to employ technical men required by the departmental specified in the schedule below for the work. In case the selected tenderer is professionally qualified / or has undertaken to employ technical staff under him, he should see that one of the technically qualified staff is always at the site of the work during working hours personally checking all items of works and paying extra attention to such works as may demand special attention, e.g., reinforced concrete works etc.,

Contractor

No of corrections

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18. A tenderer submitting a quotation which the tender accepting authority considers excessive and / or indicative of the insufficient knowledge of current prices or definite attempt at profiteering will render himself liable to be debarred permanently from tendering or for such period as the tender accepting authority may decide. The tender rates should be based on the controlled price for materials, if any, fixed by Government or the reasonable price permissible for the tenderer to charge a private purchaser under the provision of clause 8 of the Heading and Profiteering Prevention Ordinance, 1943 as amended from time to time and on similar principles in regard to labour and supervision in the construction.

19. The contractor should offer employment to toddy tappers to whom he can offer employment should be mentioned in the tender and he should undertake in the agreement to offer such employment to such number.

20. The fact of submitting the tender implies that the tenderers have actually inspected the site of works, and have examined before tendering the nature and extent of various kinds of soil at various depths and have based their tenders on such examination by them and no future representation in this regard will be considered.

21. A statement giving brief particulars of equipment and resources that will be put at the disposal of the work under the following classifications should accompany the tender.

- (a) Equipment (Transport) for materials, viz., lorries and carts concrete mixers)
- (b) Organisation : (i) Technical and (ii) Unskilled.
- (c) Resources in materials like teakwood etc., and extent to which departmental help is required for procurement of material and transport of same.
- (d) Methods that will be adopted to speed up the work to ensure completion within or less than the time fixed for completion.

22. The tender of the contractor who agrees to employ the maximum number of ex-serviceman number to be specified in the tender will receive preferential consideration. The tenderers are requested to report on this their COVERING LETTER.

23. Those who are not registered contractors should invariably attach income-tax clearance certificates with their tenders and registered contractors who had not already produced these certificates in the current year also should do so.

24. The Superintending Engineer / Executive Engineer reserved himself the right of allotting the different sub-works to the different contractors or to one and the same contractors as may decide after the receipt of tenders.

25. In the event of the work being transferred to any other Division the Executive Engineer who is in-charge of the Division having jurisdiction over the work shall be competent to exercise all the powers and privileges reserved in favour of the Board.

C. S. I. As may be specified by the Superintending Engineer / Executive Engineer.

II. To be remitted in the form of Demand Draft drawn in favour of the Executive Engineer, TNUHDB, Salem division.

Contractor

No of corrections

Superintending Engineer

TENDER

Date :

The Superintending Engineer / Executive Engineer
Circle / Division

Sir,

I / We do hereby tender and, if this tender be accepted undertake to execute the following works viz., as

shown in the drawing and described in the specification deposited in the office of the Superintending Engineer / Executive Engineer of Circle / Division with such various by way of alteration of addition to and omission from the said works and method of payment as and when provided for in the conditions of contract for the sum of Rupees or such other sum as may be arrived at under the clause of the Standard Preliminary Specification relating to "Payment on lump-sum basis or by final measurement unit prices."

I / We have also completed the priced list of items in schedule "A" annexed (in words and figures) for which I / We agree to execute the work when the lump-sum payment under the terms of the agreement is valid by payment on measured quantities.

I / We have hereby distinctly and expressly declare and acknowledge that, before the submission of my / our tender I / We have carefully followed the instructions in the tender notice and have read the Tamil Nadu Detailed Standard Specifications and the Preliminary Specification therein and that I / We have made such examination of the contract documents and of the plans, specifications and quantities, and of the location where the said work is to be done and such investigation of the work required to be done, and in regard to the material required to be furnished as to enable me to thoroughly understand the intention of some of the requirements, covenants, agreements, stipulations and restrictions contained with in the contract and in the said plans and specifications and distinctly agree that I / We will not hereafter make any claim or demand upon the Government based upon or arising out of any alleged misunderstanding or misconception or mistake on my / our part of the said requirements covenants, agreements, stipulations restrictions and conditions.

I / We.....being a registered TNUHDB
/ P. W. D.

enclose an income-tax verification
contractor certificate in respect of (here particulars of the
previous
have already produced an income-tax verification
on which the certificate was produced should be given) I / We enclose herewith a chalan for the payment
of sum
of Rupees.....

If / my our tender is not accepted this shall be returned to me/us on my/our application when intimations is sent to me/us of rejection or at the expiration of three months from the date of this tender whichever is earlier. If/my our tender is accepted, the earnest money shall be retained by the Government as a security for the fulfillment of the contract. If upon written intimation me/us by the Superintending Engineer / Executive Engineer Officer I/We fail to attend the said office before the end of the period specified on such intimation, the tender will not be considered and if upon intimation, being given to me/us by the Superintending Engineer / Executive Engineer of acceptance of my/our tender I/We fail to make the additional security deposit or to enter into the required agreements defined in clause 4 of the tender notice, then I/We agree to the forfeiture of the earnest money. Any notice required to be served on me/us hereunder shall be sufficiently served on me/us if delivered to me/us address given herein. Such notices shall if sent by post be deemed to have been served on me/us at the time when in due course of post would be delivered at the address to which it is sent.

Contractor

No of corrections

Superintending Engineer

I / We fully understand that the written agreement to be entered into between me/us and the Board shall be the foundation of the rights of both the parties and contract shall not be deemed to be complete until the agreement has first been signed by me/us and then by the proper officer authorised to enter into contracts on behalf of Board.

I am / We are professionally qualified and my/our qualifications are given below :

Name	Qualifications

I / We will employ the following technical staff for supervision the work and will see that one of them is always at site during working hours personally checking all items of works and paying extra attention to such works as require special attention (e.g.) reinforce concrete work.

Name of members of technical staff proposed to be employed	Qualifications

NOTE :(a) The last two clause should be scored out if the cost of the work involved is less than Rs.10,000.

(b) The tenders should score out the last clause or the penultimate accordingly as they are themselves professionally qualified or undertake to employ technical staff under them.

CONTRACTOR

Rate of Progress

(Fill in from Tender Notice)

CONTRACTOR

Extra from schedule of quantities

(Fill in only the table from Tender Notice.

Contractor

No of corrections

Superintending Engineer

SPECIAL CONDITIONS

1. The tenderer should quote his specific rates for each item both in words and in figures and furnish the total of each item and components of every work and the grand total of the whole contract, otherwise the tender will be rejected.
2. The National savings certificate produce towards Earnest Money Deposit along with the tender will be accepted only when it is pledged in favour of the Executive Engineer, Tamil Nadu Urban Habitat Development Board concerned.
3. In the case of Fixed Deposit Receipts drawn towards EMD / ASD. the same should be discharged in the name of Executive Engineer, Division concerned duly affixing the signature of the contractor, one on the revenue stamp and another below the revenue stamp.
4. In the case of Indira Vikas Patra towards EMD/ASD., the name of the contractor along with permanent address should be indicated on the back side of Indira Vikas Patra. Also a letter must be furnished by the contractor stating that he is submitting the Indira Vikas Patra indicating the registration No. of IVP as EMD/ ASD., to the officer accepting the tender.
5. An attendance register must be maintained at site. The site representative shall sign in the register in token of his presence proportionate penalty will be levied for the days of absence calculating from the penalty for a month.
6. As per the G.O.(Ms.) No.555, dt.17.11.1999 of PWD (G2) Department, "On evaluation of tender, it is found that if the overall quoted amount of the tender is less than 5% to 15% of the departmental value put to tender, the contractor shall pay an additional security deposit at 2% of the estimated value put to tender in addition to normal ASD. If the tender discounts exceed 15% to 20% the contractor shall pay an additional security deposit of 50% of the difference between the quoted amount and estimated amount in addition to the normal ASD. Failure to furnish the additional security deposit within 15 days from the date of receipt of acceptance order and execute the agreement shall entail cancellation of award of contract with forfeiture of EMD furnished".

GENERAL CONDITION FOR THE TENDER

1. If any corrections or alternations in the specification are made in the Tender Schedule by the tenderer, such tender will be summarily rejected.
2. The successful tenderer should not assign or sublet any portion of the contract.
3. The contractor shall himself arrange for the necessary installation and supply of electricity power etc., and the water for the work. The department will not incur any expenditure on this account. The charges towards temporary connections for temporary supply of electricity and water shall also be borne by them.
4. Tenderer should thoroughly acquaint themselves with the tender notice drawings, specifications articles of agreement and conditions of contract each tender should contain not only rates but also the value of each item of work entered in a separate column. All the items being totaled in order to show the aggregate value of each tender. The rates quoted by the tenderer is expressed both in words and figures.

Contractor

No of corrections

Superintending Engineer

5. SPECIFICATION

'Specifications means the standard specifications of, TNPWD, highways Department and any particular specifications set out for this particular contract. In the absence of any specification issued by the Department, the specifications issued by the Bureau of Indian Standards or sound engineering practices will apply.

6. WORKS COMPRISED IN THE CONTRACT

This contract comprises the execution and completion of the work described or mentioned in these specifications and in the schedules here to, annexed and shown up on the drawings herein referred to, and all extra works, which may be ordered under the powers herein contained. The drawings, specifications, schedules etc., are to be considered as explanatory of each other and no advantage shall be taken of any omission in any of these documents

7. DISCREPANCIES

Should any discrepancy appear in any of the documents and drawings included in the contract, or between different parts of the same documents or any ambiguity or insufficiency of information, the contractor shall point out the same to the SUPERINTENDING ENGINEER Engineer-in-charge in writing and receive his instruction, explanation or decision in the matter, before quoting the tender.

8. OMISSIONS

In the event of anything reasonably necessary or proper to the due and complete performance of the work (of which the Engineer shall be the sole judge) being omitted to be shown or described in the drawings, specification and schedules, the contractor shall execute and provide at the rates quoted in the Bill of Quantities all such omitted works and things as if they had been severally shown and described and according to the directions of the Engineer and to his satisfaction.

9. Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years
10. Bids from Joint ventures are not acceptable'
11. To qualify for a package of contracts made up of this contracts for which bids are invited in the IFB, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.
12. Each bidder shall submit only one bid for one contract
13. The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense
14. A prospective bidder requiring any clarification of the bidding documents may notify the Superintending Engineer in writing. The Superintending Engineer will respond to any request for clarification which he received earlier than 15 days prior to the deadline for submission of bids.
15. All duties, taxes, and other levies payable by the contractor under the contract or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder.
16. The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees.
17. Bid evaluation will be based on the bid prices / negotiated price.
18. Any Bid received by the Superintending Engineer after the deadline prescribed in Clause 20 will be returned unopened to the bidder

Contractor

No of corrections

Superintending Engineer

19. Modification and Withdrawal of Bids are not accepted.
20. Negotiation is permitted after Bid evaluation.
21. The Superintending Engineer reserves the right to accept or reject any variation, deviation, or alternative offer. Variations, deviations, and alternative offers and other factors which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Superintending Engineer shall not be taken into account in Bid evaluation.
22. Superintending Engineer's Right to Accept any Bid and to Reject any or all Bids
23. Mobilisation / Secured advance will not be entertained
24. Selection for qualification will be made by a Tender evaluation committee on the basis of competence of individual bidders
25. The Superintending Engineer, Tamil Nadu Slum clearance Board, Coimbatore reserves the right to accept or reject any Bid or to reduce the scope, cancel the exercise without having to incur any cost or to assign any reason for its decision to any party whatsoever and The Superintending Engineer, Tamil Nadu Slum clearance Board, Coimbatore decision on qualifying contractors will be final and binding on all the contractors.
26. It shall be the responsibilities of the successful contractor to undertake their own studies on soil testing and structural design before actual commencement of works. These studies should be duly certified by reputed institution like IIT/Anna University. Any lapse in the future, due to failure on account of soil testing and or (structural design) shall be total responsibility of the contractor in terms of monetary value (or) otherwise.
27. The contractor should take the responsibility to justify the suitable structural designs and any damages to physical properties due to structural failure or soil failure before handing over to the Superintending Engineer and it should be borne by the contractor.
28. Any change in the existing levy/charges announced by the Government / Authorized body from time to time will be recovered from the payment to the contractor without any prior information.(B.R.No.5.06/461 dated 3-6-2014 and C.E.'s circular No.4/14/SCB)/T.Cell/D1/10182/08 dated 12-6-2014).

GENERAL CONDITIONS

1. The superintending engineer, TNUHDB, WEST CIRCLE COIMBATORE, COIMBATORE-26. (herein after called superintending engineer) reserves to himself the right of rejecting all or any of the tenders without assigning any reasons whatsoever for so doing or of accepting a tender in parts.
2. Any tender not received in proper order as per department schedule and according to instructions, given in the notice and in due time is liable to be rejected.
3. All the materials used and the work done must be of the best quality and upto the

Contractor

No of corrections

Superintending Engineer

departmental specifications and should be got approved by the executive engineer, in charge of the work.

4. The tenderer is requested to state clearly whether he has the machinery and staff ready to commence the work immediately upon acceptance of his tender. the whole work consisting of pile foundation pile caps and grade beams should be completed within a month from the date of handing over of site and according to schedule attached.
5. The contractor will be permitted to do work at nights, subject to the availability of department staff for supervision but no extra rate will be allowed on account of over-time wages cost of lighting or on any other account.
6. The successful tenderer should not assign or sublet any portion of the contract without the written permission of the Executive Engineer.

SPECIAL CONDITION

The successful tenderer must furnish the Design Mix proportion to be adopted in the Ready Mix Concrete works as per the agreement specification, obtained from Anna University, Chennai / IIT, Madras / P.W.D for using in this work within 45 days from the Date of acceptance of Agreement in consultation with the Executive Engineer concerned. The site will be handed over to the successful tenderer immediately after obtaining the Design Mix proportion or 45 days from the date of signing of the Agreement, which ever event occurs earlier and the period of contract will be reckoned from the date of handing over of the site. In the event of failure to submit the Design Mix within the stipulated period of 45 days, it can be submitted after the handing over of the site on the 45th day. However, the connected concrete works should be commenced only after the submission of the Design mix to the satisfaction of the S.E/E.E.. Obtaining of Design Mix in time as stated above, is the sole responsibility of the successful tenderer and TNUHDB will not be held liable in whatsoever manner it may be. No price escalation will be allowed on account of this provision which is mainly intended to provide a reasonable work plan for the completion of works. The Superintending Engineer reserves the right to cancel the agreement or to withdraw this time concession at his/her site discretion and if necessary at the risk and cost of the contractor if there is a delay or wilful misuse of the provision by the successful tenderer in this regard. This condition is applicable only when Design Mix parameters are involved in the contracts. Otherwise this condition will not be applicable.

Special Condition Regarding Employment of Labour

Employer Means Superintending Engineer, West Circle Coimbatore / Executive Engineer or any other authorized persons and Contractor means successful Tenderer or the Agency with whom agreement is signed.

LABOUR:

1. The contractor shall, unless otherwise provided in the contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

2. The contractor shall, if required by the Employer, deliver to the Employer a return in detail, in such form and at such intervals as the Employer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the contractor on the site and such other information as the Employer may require.

3. COMPLIANCE WITH LABOUR REGULATIONS:

During continuance of the contract, the contractor shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the state or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future

Contractor

No of corrections

Superintending Engineer

either by the state or the central Government or the local authority. The contractor shall keep the Employer indemnified incase any action is taken against the employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of contractor, the Employer shall have the right to deduct any money due to the contractor including his amount of security deposits in any form. The Employer shall also have right to recover from the contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the contractor in no case shall be treated as the employees of the Employer at any point of time.

4. Contractor' s Risks:

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the contract are the responsibility of the contractor.

5. In addition to the conditions stated in TNDSS clause 42, the contractor shall register the names of all labours engaged by him / her for this work with the appropriate Agencies as notified from time to time as per the rules and laws in force. He shall take all preventive measures in the Execution of works to safe guard the lives of the labours engaged. The contractor will be soley held responsible for any act of negligence in protecting the lives of the labours engaged.

6. Insurance

The Contractor shall provide, insurance cover from the start date in complete shape to the Employer concerned.

A: Till the handing of the Project for,

a. Loss of or damage to the Works, plant and Materials.

b. Loss of or damage to Equipment.

c. Loss of or damage of property (except the works, Plant, Materials and Equipment) in connection with the contract; and. B.Till the completion of works personal injury or death of the labour and staff engaged by the contractor.

7. Policies and certificates for insurance shall be delivered by the contractor to the Employer for the Employer"s approval before the 1st payment from TNSCB. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

8. If the contractor does not provide any of the polices and certificates required, the Employer may effect the insurance which the contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the contractor or, if no payment is due, the payment of the premiums shall be a debt due.

9. Alternations to the terms of an insurance shall not be made without the approval of the Employer.

**CONDITIONS REGARDING THE SCALE AND QUALIFICATION FOR
THE EMPLOYMENT OF TECHNICAL STAFF AND THE RATES OF PENALTY FOR**

**FAILURE ON THE PART OF THE CONTRACTORS
TO EMPLOY THE TECHNICAL STAFF
SCHEDULE**

Sl. No.	Value of contract	Qualification and No. of Technical Assistants to be employed	Penalty for the failure to employ the technical
1.	Rs.1 lakh to Rs.5 lakhs	One Diploma Holder in Civil Engineering or not less than one retired Junior Engineer	Rs.2,000/- Per month
2.	Rs.5 lakhs to Rs.10 lakhs	One B.E. (Civil) or equivalent degree holder or not less than one retired sub-divisional officer (Assistant Executive Engineer) or one diploma holder with three years experience	Rs.5,000/- Per month
3.	Rs.10 lakhs to Rs.25 lakhs	One B.E. (Civil) or equivalent degree holder with three years experience in Civil Engineering works or not less than one retired sub-divisional Officer plus one diploma holder in Civil Engineering with three and five years experience respectively.	Rs.7,000/- Per month
4.	Rs.25 lakhs to Rs.50 lakhs	One B.E. (Civil) or equivalent degree holder with three years experience or not less than one retired sub-divisional officer or (Retired Assistant Executive Engineer) plus two diploma holders in Civil Engineering or two retired Junior Engineers. <u>Alternative:</u> One B.E. (Civil) or equivalent degree holder with three years experience or not less than one retired sub-divisional officer and one more BE. (Civil or equivalent degree holder.	Rs.9,000/- Per month Rs.10,000/- Per month
5.	Above Rs.50 lakhs	Three B.E. (Civil) or equivalent degree holder with three years experience or not less than one retired sub-divisional officer and two more B.E. (Civil) or equivalent degree holder.	Rs.15,000/- Per month

Note: Revised tariff for levy of penalty for non employment of Technical Assistant (As per G.O.Ms. No.181 P.W.(G2) Department, Dt:16.05.03)
BR No.28, dated:05.12.2003

(i) For Diploma holder	Rs.2,000/- per month / each
(ii) For Degree holder	Rs.5,000/- per month / each

Contractor

No of corrections

Superintending Engineer

PRICE- ADJUSTMENT CLAUSE

Price Adjustment Clause is applicable for this work subject to the following as per. (G.O. Ms.No. 101 Public Works (G2) Department, Dated:10.06.2009.

- a Full price adjustment on all the components is applicable, if the contract period is more than 12 months.
- b Price adjustment on cement, steel, bitumen and POL is applicable, if the contract period is 12 months and below.
- c Price adjustment will apply only when the rates exceed. or decrease by 3% or more compared to the estimate rates (Reserve Bank of India – Index Price)
- d Price adjustment will be calculated only on the departmental estimated cost of work.
- e Bitumen and POL will be considered on “pass through” basis with payment of actual rates / price at the rates charged by Indian Oil Corporation.
- f Price adjustment will be made for both increase and decrease in the cost of materials.
- g Price variation will be calculated once in a quarter (i) in respect of cement and steel for the works with contract period upto 12 months and (ii) in respect of all components except bitumen and Petroleum, Oil & Lubricants (POL), for the works with contract period of more than 12 months, from the last date of submission of bid upto the end of agreement period provided, if the agreement is signed within the minimum specified time, failing which, the price variation will be applicable from the date of agreement only, based on the wholesale price indexes of RBI.
- h The quarter would be reckoned with reference to the quarter of the calendar year in which the last date on bid submission is fixed. In case of delayed agreement the quarter in which the agreement is signed will be reckoned for the purpose of calculation of price adjustment.
- ji Price escalation / variation is calculated based on milestones fixed in physical terms and have a prefixed time-lines for use of inputs-clearly indicating the nature and quantum of eligible inputs to be used for the work for the relevant period between two mile stones.
- j Price variation / escalation will be applicable for those quantities ‘actually’ used by the contractor including addition quantities, if any, used or achieved ahead of the time-line.
- k If the contractor does a certain quantity of the work in the third quarter which ought have been done in earlier quarter, price variation / escalation will still be applicable on that quantity at the rates applicable in the relevant quarter as per time-line or period of actual use whichever is less.
- l Price adjustment mechanism will cease to operate for the value of work executed beyond the agreement period.
- m Agreement period shall include the “actual period” for which the work was “suspended officially” and extension of time permitted for any valid reasons, such as, war, natural calamities, like flood, earthquake and other risks arising out of acts of God during the agreement period; work delayed due to the land acquisition process; change in design, change in scope of work, etc.
- n Bonus as an incentive for advance completion of work by not less than 10% of agreement period will be paid at 1% on the value of actual quantum of works executed at tendered rates.

FORMULAE FOR PRICE ADJUSTMENT

The Price adjustment shall be determined during each quarter from the formula given below.

R = Total value of work done during the quarter. It would include the amount of secured advance for materials paid for (if any) during the quarter, less the amount of the secured advance recovered, during the quarter. It will exclude value for works executed under variations for which price adjustment will be worked separately based on the terms mutually agreed.

Adjustment for labour component

- (i) Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula.

$$V_L = 0.85 \times P_l / 100 \times R \times (L_i - L_o) / L_o$$

V_L = increase or decrease in the cost of work during the quarter under consideration due to changes in rates for Local labour.

L_o = The average consumer price index for industrial workers for ----- centre for the quarter proceeding the date of opening of Bids as Published by labour Bureau, Ministry of Labour, Government of India.

L_i = The average consumer price index for industrial workers for ----- centre for the quarter under consideration as published by labour Bureau, Ministry of Labour, Government of India.

P_l = Percentage of labour component of the work.

Adjustment for cement component

- (ii) Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula.

$$V_c = 0.85 \times P_c / 100 \times R \times (C_i - C_o) / C_o$$

V_c = increase or decrease in the cost of work during the quarter under consideration due to changes in rates for cement.

C_o = The all India average wholesale price index for cement for the quarter proceeding the date of opening of Bids as published by Ministry of Industrial Development, Government of India, New Delhi.

C_i = The all India average wholesale price index for cement for the quarter under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_c = Percentage of cement component of the work.

Adjustment for steel component

- (iii) Price adjustment for increase or decrease in the cost of steel procured by the contractor shall be paid in accordance with the following formula.

$$V_s = 0.85 \times P_s / 100 \times R \times (S_i - S_o) / S_o$$

V_s = Increase or decrease in the cost of work during the quarter under consideration due to change in rates for steel.

S_o = The all India average wholesale price index for steel (Bars and Rods) for the quarter proceeding the date of opening of Bids as published by Ministry of Industrial Development, Government of India, New Delhi.

S_i = The all India average wholesale price index for steel (Bars and Rods) for the quarter under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_s = Percentage of steel component of the work.

Note For the application of this clause, index of Bars and Rods has been chosen to represent steel group

Adjustment for Bitumen component

- (iv) Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula.

$$V_b = 0.85 \times P_b / 100 \times R \times (B_i - B_o) / B_o$$

V_b = increase or decrease in the cost of work during the quarter under consideration due to change in rates for bitumen .

B_o = The average official retail price of bitumen at the IOC depot at ----- on the day 30 days prior to the date of opening of Bids.

B_i = The average official retail price of bitumen at the IOC depot at -----for the 15th day of the middle calendar month of the quarter under consideration.

P_b = Percentage of bitumen component of the work.

Adjustment of POL (fuel and lubricant) component

- (v) Price adjustment for increase or decrease in the cost of POL (fuel and lubricant) shall be paid in accordance with the following formula.

$$V_f = 0.85 \times P_f / 100 \times R \times (F_i - F_o) / F_o$$

V_f = increase or decrease in the cost of work during the quarter under consideration due to changes in rates for fuel and lubricants.

Contractor

No of corrections

Superintending Engineer

Fo = The average official retail price of High Speed Diesel (HSD) at the existing consumer pumps of IOC at ----- on the day thirty days prior to the date of opening of Bids.

Fi = The average official retail price of HSD at the existing consumer pumps of IOC at ----- for the 15th day of the middle calendar month of the quarter under consideration.

Pf = Percentage of fuel and lubricants component of the work.

Note For the application of this clause, the price of High Speed Diesel oil has been chosen to represent fuel and lubricants group.

Adjustment for Plant and Machinery Spares Component

Price adjustment for increase or decrease in the cost of plant and machinery spares procured by the contractor shall be paid in accordance with the following formula.

$$V_p = 0.85 \times P_p / 100 \times R \times (P_i - P_o) / P_o$$

V_p = increase or decrease in the cost of work during the quarter under consideration due to changes in rates for plant and machinery spares.

P_o = The all India average wholesale price index for heavy machinery and parts for the quarter proceeding the date of opening of Bids as published by ministry of Industrial Development, Government of India, New Delhi.

P_i = The all India average wholesale price index for heavy machinery and parts for the quarter under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_p = Percentage of plant and machinery spares component of the work.

Note : For the application of this clause, index of heavy machinery and parts has been chosen to represent the plant and machinery spares group

Adjustment for Local material

Price adjustment for increase or decrease in the cost of local materials other than cement, steel, bitumen and POL procured by the contractor shall be paid in accordance with the following formula.

$$V_m = 0.85 \times P_m / 100 \times R \times (M_i - M_o) / M_o$$

V_m = increase or decrease in the cost of work during the quarter under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.

M_o = The all India average wholesale price index (all commodities) for the quarter proceeding the date of opening of Bids as published by Ministry of Industrial Development, Government of India, New Delhi.

M_i = The all India average wholesale price index (all commodities) for the quarter under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

P_m = Percentage of local materials component (other than cement, steel, bitumen and POL) of the work.

The following percentage will govern the price adjustment for the entire contract :

1. Labour	- P_l	-----%
2. Cement	- P_c	-----%
3. Steel	- P_s	-----%
4. Bitumen	- P_b	-----%
5. POL	- P_f	-----%
6. Plant & Machinery spares	- P_p	-----%
7. Other materials	- P_m	-----%
Total		----- 100% -----

SPECIAL CONDITION

As per the Government order the shrinkage period will be One year from the date of completion as against the practice of six months in order to watch the effect of all seasons on the works. Accordingly after completion of work, a sum or equivalent to 5% of the value of work done from the contractors will be retained for the above period for the due fulfillment of contract for all works. Further the contractor should furnish an Indemnity Bond for the further period of four years. After retaining as stipulated and stated above, the balance amount such as E.M.D. may be returned only after the expiry of six months from the date of completion.

ARBIRATION CLAUSE

The arbitration for fulfilling the duties set forth in the arbitration clause of the standard preliminary specification shall be

Contractor

No of corrections

Superintending Engineer

Claims upto Rs.10,000/-	Superintending Engineer, West Circle Coimbatore of TNUHDB
Claims upto Rs.50,000/-	Chief Engineer, TNUHDB
Claims above Rs.50,000/-	Court of Law under jurisdiction of Chennai City

SPECIAL CONDITION FOR GST

1. The details of supply of Goods & Services are subject to GST rules applicable with effect from 1.7.2017.
2. All the tenderers are requested to submit the GSTIN registration number at the time of tenders or at the time of submitting their invoice / Bill claim, without which the payment will not be paid to the contractor.
3. All the tenders while quoting the rates should clearly indicate the basic rates and applicable GST separately as per GST rules which are in force.
4. The GST and all taxes should be borne by the Contractor.

SPECIAL CONDITION FOR EMF [Environmental Management Framework]

1. The Contractor should strictly adhere to the EMF adopted by the Board to ensure that the Tamil Nadu Urban Habitat Development Board's housing project interventions lead to environmentally sustainable outcomes and to provide a systematic approach for TNUHDB towards environmental management.
2. The Contractor should submit Bi-Monthly Monitoring Report to Chief Engineer Chennai through the Executive Engineer concerned.

SPECIAL CONDITION FOR CEMENT

1. The contractors should make their own arrangements to procure the required quantity of good quality of cement for the works from the approved manufacturers confirming to ISI standard with the prior approval of the Executive Engineer.
2. The cement shall be of fresh and good quality confirming to the specification as per IS 8112/1989 43 grade.
3. The cement in each consignment shall be tested by the contractors at their risk and cost for its strength and quality in approved Government laboratories and necessary certificate to be produced before its actual use in the work, with the prior approval of the Executive Engineer.
4. The samples for the test should be collected only in the presence of the Executive Engineer or the officers authorized by him.
5. The contractors should inform the Executive Engineer in charge of the work about the arrival of cement consignment, each time and maintain minimum stock of cement quantity as specified by him.

Contractor

No of corrections

Superintending Engineer

6. The rejected cement consignment if any should be removed from the site immediately at their risk and cost.
7. The quantity of cement required for testing shall be supplied by the contractors at free of cost.
8. The contractors are responsible for the storage of cement and make all arrangements for the stock and safety at site of work.
9. The contractors should produce the manufacturer's certificate for which the cement supplied by them.
10. The contractors shall procure in standard packing of 50kg per bag from the authorized manufactures. The contractors shall make necessary arrangements at their own cost to the satisfaction of Engineer-in-charge for actual weight of random sample from the available stock and shall conform with the specification laid down by the Indian Standards Institution as per IS 8112/1989. Cement shall be got tested for all the tests as directed by the Engineer-in-charge at least one month in advance before the use of cement bags brought and kept at site godown.
11. The contractor shall store the cement of 30 days requirement at least in advance to ensure the quality of cement to be brought to site and shall not remove the same without the written permission of Engineer-in-charge.
12. The contractor will have to construct sheds for storing cement having capacity not less than the cement required for 30 days use at approved locations. The Engineer-in-charge or the representative shall have free access to such store at all times.
13. The contractor shall further at all times satisfy the Engineer-in-charge on demand by production of records and test books or by submission of returns and other proofs as directed that the cement is being used as tested and approved by Engineer-in-charges for the purpose and the contractor shall at all times keep his record upto date to enable the Engineer-in-charge to apply such checks as he may desire.
14. Cement which has been unduly long in storage with the contractor or alternatively has deteriorated due to inadequate storage and thus become unfit for use on the works will be rejected by the Department and no claim will be entertained. The contractor shall forth with remove from the work area any cement if the Engineer-in-charge may disallow for use in work and replace the cement complying with the relevant Indian Standards.

SPECIAL CONDITION FOR STEEL

1. a) The Contractors have to make their own arrangements to procure standard quality of steel from the reputed dealers with prior approval of the Executive Engineer.
- b) The quality of steel should confirm to Indian Standard specification Fe 500 D (Ductile) Grade Steel shall be adopted for projects located in Seismic Zone III areas and Fe 500 Grade Steel for Seismic zone II areas of Tamilnadu.

Contractor

No of corrections

Superintending Engineer

c) The steel supplied shall be sound and free from cracks harmful surface flaws, lamination, rough and imperfect edges other defects.

2. The contractors with prior approval of the Executive Engineer have to make their own arrangement to test each consignment of steel from the Government testing laboratory at their risk and cost for strength, section weight and diameter and produce the test certificate before its actual use in the works which will be allowed in bills.

3. The result should pass the test. Test also inclusive of physical properties such as weight 0.2% proof stress, Tensile strength percentage of elongation and Bend test.

4. Tolerance on weight:- The tolerance on weight for bars shall confirm to relevant ISI specifications.

5. The contractor should produce the manufacturer's test certificate for each consignment.

6. 6mm MS steel is to be supplied only in the form of coils.

SPECIAL CONDITION FOR THE ELECTRICAL WORKS

1. The work shall be carried out in accordance with the General specification for Electrical works and the code of practice for electrical wiring installing I.S.8732/1963 and I.S.3045/1965 and as amended upto date. All installation shall comply with the requirement of Indian Electricity Rules 1956 and Act and I.S. code amendment up to date.

2. Approval of the Engineer-in-charge shall be taken well in advance for all materials and brand of materials to be used on works by the contractor based on the description of the Executive Engineer-in-charge and his decision will be final.

3. Bad workmanship is liable to be rejected in total.

4. The Contractor shall supply on completion of work, completed plan along with insulation, polarity and earth test reports before the installation is to be handed over to the Executive Engineer-in-charge in good condition in triplicate. The tests should be carried out in the presence of Engineer-in-charge at contractor's cost.

5. All repairs and patch works shall be neatly carried out to match the original finish and to the entire satisfaction of Engineer-in-charge.

6. The Contractor shall make his own arrangements at his own cost for all general Tools and Plants and special Tools and Plants required on the job.

7. The Contractor shall make his own arrangements for storage of materials and watch and ward at his own cost till installation (completed works) is handed over to the Department for obtaining the service connection from Electricity Board and testing the line. Any loss and tampering of materials for which the payment was made by the department, shall be made good by the Contractor at his own cost.

8. Issue of the materials to the Contractor wherever stipulated shall be regulated to the needs from time to time depending upon the progress.

9. Materials stipulated for issue shall be taken over to the site of works and the safe custody till completion of the job is the responsibility of the contractor.

Contractor

No of corrections

Superintending Engineer

10. All debris due to electrical works shall be removed from site by the contractor as soon as the work is completed.
11. Electrical works shall be progressed by the contractor side by side with the progress of the building work, carrying of conduits for recessed portion shall be planned together with the building progress so that there is no hindrance to the building progress at any stage.
12. The internal electrical installations shall be ordinarily carried out according to the drawing supplied with the schedule of work subject to change made by the Executive Engineer-in-charge.
13. The wiring routes shall be marked at site first and get approval from the Executive Engineer-in-charge before commencement of actual work. The work must be carried out as directed by the Executive Engineer-in-charge.
14. In place, where electrical conduit is required to place through wall/RCC column/beam etc., the conduit shall be laid during the execution of work in consultation with the Engineer-in-charge so as to avoid the need for cutting the structure at a later stage.
15. The teak wood materials such as fillets specials T.W. bodes and all materials shall be got approved from the Engineer-in-charge before use to ensure the quality of materials.
16. In the case of recessed conduit works, the M.S. Boxes shall also be recessed and covered with 1/8" (3mm) hylem bake lite sheet. The thickness of M.S. Box sheets shall not be less than 3mm thick.

PROVISION OF FITTINGS

17. All switch boards shall be placed such that the bottom is normally 1.22 metres above floor level or such height as decided by the Engineer-in-charge.
18. All fittings shall be provided at 2.6 metre from the floor level or such height as decided by the Engineer-in-charge.
19. The convenient 5/15 amps plug socket shall be 23 cm above floor level or such height as decided by the Engineer-in-charge.
20. Wiring shall run normally at 2.6 metres from the floor level or such height as decided by the Engineer-in-charge.
21. The materials issued if any by the department to the contractor the cost will be recovered at the stores issue rates. If the contractor fails to return the surplus materials after completion of work, the cost will be recovered at double the stores issue rate or market rate whichever is higher.
22. Tools and Plants generals and special as required on the work is to be arranged by the contractor at his own cost.
23. Brass tinned link/joint clips of 0.32mm (30 gauge) thick upto 40mm length and 0.40mm (28 gauge) thick above 40mm length and of 8mm width shall be used on the work.
24. Brass hinges brass hooks and eyes, single plank teak wood board 60mm minimum depth in case of open wiring and minimum depth of 100mm in the case of concealed wiring and not less than 6mm thickness shall be used on the works.

Contractor

No of corrections

Superintending Engineer

FIXING OF WOODEN BATTERNS

25. The screws shall be used for fixing the wooden battern and accessories at an interval not exceeding 50cm. The thickness of batterns shall not be less than 10mm.
26. The clips are provided on the wooden battern with screw/pins and spaced at an intervals of 15cm both in the case of horizontal and vertical run.
27. The round block shall not be less than 75mm and 40mm deep and fixed by means of 2 Nos. of screws.
28. Plona type switches, sockets outlets of approved make wherever needed shall be used for recessed boards after getting the approval of Engineer-in-charge.
29. Only brass screws shall be used for fittings, switches, plug and sockets main boards and distribution boards and teak wood accessories etc., required for wiring.
30. All conduct pipe shall be of approved gauge (not less than 16 SWG 14 SWG) solid drawn or lap welded finished with galvanized stone enameled finish. The saddles used shall not be less than 24 gauge up to 25mm dia pipes and not less than 20 gauge for longer dia pipes.
31. The main earthing load shall not be less than 8 SWG copper (4.06mm). In case of copper wire earthing of 6 SWG G.I. Wire (4.96 mm) in case of G.I. wire earthing separate earthing shall be provided for all mountings of main boards, distribution boards, 5/15 amps C.S. plugs sockets with not less than 14 SWG of copper (2.03mm.)
32. Earthing shall confirm to the relevant I.S. code 303/1966. The G.I. pipes earth electrode system is adopted. G.I. pipes shall be of medium class 38/40 mm dia 3.75 metres long. The electrode shall be buried in the ground vertically with its top not less than 20 cm below ground level. Normally an earth electrode shall provide 1.5 metres away from any building. In case of providing twin earthing the distance between the earth pits shall be 10'-0" alternative layers of charcoal or coke and salt of minimum 15cm thick are to be provided from the bottom of earth pit up to 1.00 metre below ground level and the masonry work is to be carried out in brick with cement mortar 1:4 (one of cement and four of sand) above the last layer and the top is to be covered by suitable cast iron frame and cover.
33. The staircase light point wiring must be done by looping or piece wire system and switch must control phase or line wire only.
34. Looping in system is to be adopted for wiring normally the looping of neutral to light fan plug points etc., shall be restricted to 3 points for a single wire from the switch board.
35. The wooden battern and specials shall not be butt jointed and joints should be lap jointed.
36. The wiring must be done using bend and corners wherever necessary sharp banding or cabling must be avoided.
37. The lighting circuit shall not have more than 10 points or a load of 800 watts which ever is less. In exceptional cases the lighting circuit shall not have more than 8 points.
38. Power wiring shall be kept separate and distinct from the lighting wiring.
39. The contractor should be present at the premises at the time of effecting service connection by the Electricity Board authority and afford all facility for testing and commissioning the installations.

Contractor

No of corrections

Superintending Engineer

40. The apartment main switches and the main switches at the Electricity Board Service connection should be numbered in paint for easy identification and the damager boards should be provided wherever necessary according to the Indian Electricity rules and indications.
41. The contractor should provide sufficient leads for connecting the main switches to meters and cuts provided by the Electricity Board at his own cost.
42. Looping of neutral and connection wires in the switch boards must be carried out through mechanical connectors and proper insulation shall be provided inside the switch boards wherever necessary to avoid short circuiting the system.
43. The scaffolding and the shed required for the Electrical installation works should be put up by the contractor at his own cost.
44. The run off mains relates to the mains run from the buss bar to distribution board or buss bar main switches as the position indicated in the electrical layout. The point wiring shall includes mains taken from distribution board or main switch to board. The main for this shall not be measured and paid.

The run off mains relates to the mains run from the main switches provided inside the apartments to the Electricity Board authorities. The earthing for the main switches provided in the service connection board should be properly inter connected and connected to the main earthing system.

45. Each circuit has to be taken from the Distribution Board by separate independent conductor/separate group of wires from Distribution Board and they could be distinctly visible. The wiring must be one if there is no Distribution Board with distributed circuits as directed by the field staff.
46. For temporary supply if any required by the contractor himself should apply to Madras Electricity System and obtain the supply at his own cost.
47. PVC pipes and specials, M.S. Boxes etc. if available with the department the same may be supplied for works at recovery.
48. The contractor should prepare necessary electrical systematic layout drawing at his own cost and get approval from the Chief Electrical inspection to Government, Madras-2 and the permission to enlarge the same from the CEIG (Madras-2)
49. The contractor shall use only the brand of materials that are approved by the Engineer-in-charge.
50. The Electrical installation to be carried out as per the specification and it confirmed to I.E. rule.
51. SALES TAX:- Clause (2) of General conditions of contract "The contractors shall be solely responsible to the payment of Sales Tax under the provisions of the Tamil Nadu General Sales Act 1939 (Madras Act IX of 1939) as in force for the time being and the rates for the various items of the work shall remain unaffected by any change that may be made from time to time in the rate which the sales tax is payable.
52. All rates quoted in the tender shall be inclusive of payable under General Sales Tax Act as amended from time to time (Including Amendment Act) 28/84 and that the contractor or responsible to file the sales tax returns and may be the tax as demanded by the Commercial Tax Department. No request for payment of sales tax separately, in addition to tendered rates due to any subsequent levy increase in tax, will be entertained vide also clause 38 (x) or General conditions of contract.

Contractor

No of corrections

Superintending Engineer

53. The Electrical contractors should hold either "A" grade license (or) "B" grade license issued by the Electrical wireman and supervisor contractor licensing Board.

FOR CONTRACTOR'S SPECIAL ATTENTION

1. Clean fresh water and river sand shall be used in all cases.
2. Only clean fresh water shall be used on the work. The Contractor shall make his own arrangement for water and shall meet all charges therefore. The special attention of the contractor is drawn to clause 36 of the Preliminary Specification in the T.N.D.S.S. regarding water and lighting.
3. The broken stone for concrete and R.C.C. work should be of granite as passed by the Executive Engineer.
4. All Iron work or Steel work of every kind except such as is to be embedded in cement concrete shall immediately on arrival at the site be properly scrapped and wire brushed and give a priming coat of approved red lead paint without claim or extra.
5. All fittings and furniture of doors and windows shall be of best quality steel machine made and well happened. The iron hold fasts shall be built up in the walls in cement mortar 1:3 at the time of construction of wall no extra claims shall be due for the same. Wherever hold fasts are to be provided 9" thick walls, these should be fixed with C.C. 1:3:6 using 3/4" size hard broken granite stone jelly proper anchorages and for proper binding. No separate rate for such of concrete filling at hold fasts point will be allowed and this will be measured as masonry along with adjacent masonry.
6. The teakwood shall be best Indian teakwood only and shall be subject to inspection and approved by the Executive Engineer before use on the work. Country wood where specified shall be of best Karimarudu and Mongu for scantling and Aiyini for planks.
7. Holes and chases for electric wiring, water supply and drainage etc., shall be provided as directed during progress of work without any claim for extra.
8. The work shall be carried out with the least hindrance to the adjoining buildings and officers and the contractor will be responsible for any damages, caused to the existing fixtures, electric fitting etc., in the course of execution and the contractors shall make good any such damages without any claim the extra.
9. In the case of 'T' beams and 'L' beams, the quantities given in the schedule is the quantity of rib portion only. The top flange portion will be always measured with the general slab portion and paid for at the slab rate only. For all R.C.C. work the rate shall include the treatment of bearing as per plate W. No.2 of 1946 as per M.D.S.S. (Page 52 of 952 edition.)
10. Plastering all external corners, edges of beams, edges of doors and windows, openings etc., shall be finished sharp using richer mortar if necessary and also finished truly vertical or horizontal as the case may be the rate of plastering shall include the cost of finishing as above and no separate rate for finishing the corners, edges of beams, etc., will be paid.
11. Fixing iron bars to windows : The methods of measurements for this item of work shall be area of the window frames.
12. If rates are not separately called for similar items of work in different floors the contractor should note one rate applicable for all the floors indicating in the detailed plans. Any claim for extra rates for such items floor-war will not be entertained under any circumstances.
13. The revised preliminary specification of the T.N.D.S.S. are applicable of the contractor as per G.O.2659 P.W.D. dated 23-12-79.

ADDITIONAL SPECIFICATION

1. The planks for forms and centering for R.C.C. works shall be of well-seasoned timber approved by the Executive Engineer according to Clause (10) of M.D.S.S. No.30. They must be made smooth and perfectly level at top so as to give smooth and even finish to the R.C. Ceilings. Alternatively the contractor may use steel sheets over wooden form provided the required finish to the

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No of corrections

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under-side of the slabs is obtained. Mango planks shall not be used under any circumstances. Centering and forming shall be provided to the extent and as ordered by the Executive Engineer during the execution.

2. All cement concrete for R.C.C. work shall be machine mixed and vibrated.
3. All lime mortar shall be ground in a mortar mill as per M.D.S.S.
4. M. S. Steel rods should be cut and placed as reinforcements with proper care according to the available rods at site so as to ensure the minimum possible wastage.
5. The cut bits shall be to the account of the contractors themselves and the same will not be taken back.
6. The quantity of steel issued in excess of 5% over and above theoretical requirements and not returned to the Department in good condition, penal recovery will be made at double the issue rate, in addition to the normal recovery rate.
7. For the quantity of cement issued in excess of the theoretical requirement with an allowance indicated in the circular cited above and not returned to the department in good condition, penal recovery will be made at double the issue rate, in addition to the normal recovery rate.
8. Value of works Percentage of allowance

Upto Rs. 2.00 lakhs	5% (Five)
Upto Rs. 2.00 lakhs to Rs. 5.00 lakhs	4% (Four)
Above Rs. 5.00 lakhs	3% (Three)
9. If at any time subsequent to the execution of this agreement, department, materials other than those specified in the agreement are supplied to the contractor for use on the work, they will be charged at the market value prevailing at the time of supply or stock issue rates whichever is higher. The contractor will be informed in writing of this charge and he should intimate in writing the rate which i.e., demand for finishing the work in view of the fact that he is to use department materials. No centage or incidental charges will be borne by the Government in connection with the supply of the materials.

ADDITIONAL CONDITIONS I AND II

1. The materials noted in the list enclosed will be supplied departmentally at the work site stores and their cost recovered from the contractors bills at issue rates noted against each.
2. The contractor shall be responsible for safe custody and storage of the materials under dry conditions at the place where the works got approved by the Executive Engineer.
3. Royalty or charges due for use of private quarries and private land shall be paid by the contractor.
4. The contractor shall form his own approach road to the work site for which no extra will be due to him. On completion of the work, the contractor shall not be permitted to remove the materials laid for formation of road. If the contractor is allowed to use the existing roads, he shall maintain them in good condition at his own cost throughout the period of the contract.
5. The contractor's special attention is invited to clauses 35, 36 of Appendix of the P.S. to T.N.D.S.S. and he is requested to provide at his own expense sheds, latrines and urinals for his workmen.
6. If night work is required to fulfill the agreed rates for progress, all arrangements shall be made by the contractor inclusive of lighting without any claim for extra rate.

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7. The contractor shall not employ the labour below the age of 12 years and shall also note that he must offer employment to ex-serviceman, ex-toddy tappers and unemployed agricultural labourers as far as possible.
8. Payment will be made on detailed measurement. Any of the items in the schedule may be omitted for radically altered, no variation in the rate shall become payable to the contractor on account of such omissions or variations in quantity.
9. Reference to T.N.D.S.S. No. in the schedule quantities referred to reprint 1952 and addenda and corrigenda issued thereafter.
10. The contractor shall abide by the contract labour regulation formed by the Tamil Nadu Government.
11. The contractor shall at his own expense provide or arrange for provision of foot wear for any labour doing cement mixing work and all other similar types of works involving the use of tar, mortar, etc., to the satisfaction of the Engineering chief and on his failure to do so Government shall be entitled to provide the same and recover the cost from the contractor.
12. When there are complaints of non-payment of wages to the labour, bills of the contractor, may be withheld pending a clearance certificate from the labour department.

SPECIFICATIONS FOR SANITARY FITTINGS DRAINAGE AND WATER ARRANGEMENTS

1. Water closets, basins, urinals sinks and other sanitary ware shall be of approved make as required in the relevant items. The fixing of these shall be in accordance with the special specifications separately attached.
2. The rates shall include all dismantling making holes in walls of slabs and restoring the structures to the original conditions after the completion of the work.
3. The work shall be carried out with least hindrance to the adjoining building and the contractor shall be responsible for any damages caused to the existing fixtures, electric fittings etc., in the course of execution and the contractor shall make good any such damages without claim for extra.
4. The rate of laying stoneware pipes shall include necessary earthwork excavation for trenches (irrespective of nature of all incidental charges such as shoring strutting and bailing out water refilling trenches) after the completion of works and consolidating, removing the surplus earth to places shown within compound and making good the damages to roads and other structures.
5. The rates for laying C.I. Pipes and G.I. Pipes shall include earthwork for trenching and refilling them and fixing with plug, clamps and screws where the pipes are fixed to walls the rates for G.I. Pipes shall also include wrapping them with tarred tape where they are buried in earth tarring
6. the portions embedded in masonry and painting with white lead paint, two coats for portions above ground level.
7. The clamps for G.I. Pipes fittings should not be spaced more than 6 feet apart, the wooden plugs for pipe and bracket fittings should be properly fixed in cement mortar 1.3 in holder make, in masonry with the wide end of wedge plugs inside and no hammered with them and into the walls. The size of plugs should not less than 1" square at this end and 1 1/2" at the other end with depth of not less than 3".
8. Painting with two coats of best white paint (or any other colour approved by the Executive Engineer) over a priming coat of red lead to all flushing tanks, brackets clamps used for fixing pipes) and all lead connections. Painting with two coats of anti corrosive paint of approved colour to all C.I. Soils waste and anti syphonage pipes.
9. The rates shall include all dismantling making holes in the slabs and restoring the Structure to the original condition after the completion of the work.

Contractor

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SUPPLYING AND FIXING INDIAN TYPE WATER CLOSETS

1. The Indian type water closet shall be fixed in position at floor level in a bed of concrete brick jelly in lime mortar the proportion being 32:12 1/2 so as to completely embed the closet trap and foot rest. The existing masonry structures after dismantling the floor, making the holes, etc., shall be restored to its original condition after completion of the work. The flooring around the closet shall be finished off in cement mortar 1:3, 1/2" thick with adequate slope all round for draining into the closets. The foot rest should be fixed at an angle shown in sanitary Engineer's type designs.
2. The cast iron flushing tank shall be of three gallons capacity of Indian make of approved brand supported G.I. brackets with necessary G.I. chain and handle for pull float ball valve 1/2" lead and brass connections to the closet including necessary connection to the water main and closet complete and wiped solder joints. The flushing tanks and bracket must be painted with white glazed enamel paint 2 coats over a priming coat of red.
3. The fixing of water closets shall include the dismantling of existing floors wherever indicated making holes in masonry walls etc., and restoring structure to original condition after completion of the work. The flushing tank and accessories will be fixed to the walls with necessary clamps and brackets in cement mortar 1:0.

SPECIAL CONDITION

"The tenderer should quote his specific rate for each items both in words and figures and furnish the total of each item and the grand total of the whole contract otherwise the tender will be rejected".

SPECIAL CONDITION

"Wherever the M.S. and R.T.S. rods, supplied to the contractors for use in the work, are found to differ from standard section weight, due to variance in size, sufficient number of samples of rods of each section from each consignment, as and when the rods are received should be tested in a recognised laboratory, well before the commencement of fabrication work after getting the approval of the Superintending Engineer. The actual weight as per test report shall be adopted in the bills".

SCHEDULE "D"

Applicable to all cases of works where a minimum of fifty workers are employed except works relating to roads, channels and canals.

FOR THE PROVISION OF HEALTH AND SANITARY ARRANGEMENT FOR WORKERS

The contractor's special attention is invited to clauses 35, 36, 42 (60) & 48 of the Preliminary Specification of the Madras Detailed Standard Specification and he is requested to provide at his own expense the following amenities to the satisfaction of the Superintending Engineer.

1. FIRST AID :

At the work site there shall be maintained in a readily accessible place, first aid appliances and medicines including as adequate supply of sterilised dressings and sterilised cotton wool. The appliances shall be kept in good order. They shall be placed under the charge of the responsible person who shall be readily available during working hours.

2. DRINKING WATER :

- (a) Water of good quality fit for drinking purposes shall be provided for the work people on a scale of not less than 8 gallons per head per day.
- (b) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage tank where such drinking water shall be stored.

Contractor

No of corrections

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- (c) Every water supply storage shall be at a distance of not less than 50 ft, from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such well shall be entirely closed in and be provided with a trap door which shall be dust and water proof.
- (d) A reliable pump shall be fitted each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

3. **WASHING AND BATHING PLACES :**

Adequate washing and bathing places shall be provided, separately for men and women. Such places shall be kept in clean and drained condition, Bathing or washing should not be allowed in or near any drinking water well.

4. **LATRINES AND URINALS :**

There shall be provided within the precincts of every work places, latrines and urinals in an accessible place and the accommodation, separately for each of them shall be on the following scale or on the scale so directed by the Superintending Engineer in any particular case :

	Seats
(i) Where the No. of persons employed exceed 50	2
(ii) Where the No. of persons employed exceed 50 but does not exceed 100	3
(iii) For every additional 100	3

If women are employed, separate latrines and urinals screened from those for men shall be provided on the same scale.

Except in work places provided with water flushed latrines connected with a water store sewage system all latrine shall be provided with receptable on dry earth system which shall be cleaned at least four times daily and at least twice during working hours and kept in a strictly sanitary condition. The receptances shall be tarred inside and outside at least once a year.

The excreta from the latrines shall be disposed off at the contractor's expenses to the out way pits approved by the local public health authority. The contractor shall also employ adequate No. of scavengers and conservancy staff to keep the latrines and urinals in a clean condition.

5. **SHEDS DURING REST :**

At the work site there shall be provided, free of cost two suitable sheds one for male and the other for female, rest for the use of labourers.

- 6. At every work place at which 50 or more women workers are ordinarily employed there shall be provided two huts of suitable for the use of children under age of 5 years belonging to such women. Out hut shall be used for infants games and play and the other as their shed room. The huts shall not be constructed on a lower standard than following.

- (i) Thatched Roofs.
- (ii) Mud floors and walls.
- (iii) Planks spread over the mud floor and covered with matting.

The use of the huts shall be restricted to children, their attendants and mothers of the children.

7. **CANTEENS :**

A cooked food canteen on a moderate scale shall be provided for the benefits of workers if it is considered expedient.

Contractor

No of corrections

Superintending Engineer

8. **SHED FOR WOMEN :**

The contractor should provide at his expense sheds for housing his workmen. The shed shall be on a standard not less than the cheap shelter type to live in which the work people in the locality are accustomed to, floor area of about 6' x 5' for 2 person shall be provided. The sheds are to be in rows with 5ft, clear space between rows if conditions could permit. The work people camp shall be laid out in units of 400 persons each unit to have clear a space of 40 ft, all round.

CONDITION REGARDING CONTRACTOR'S RISK AND INSURANCE

The second para in clause 47 of the Preliminary Specification to T.N.D.S.S. is not operative and stands cancelled.

CLAUSES REGARDING ENGAGEMENT OF APPRENTICES

1. The contractor shall comply with the provisions of the Apprentices Act 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the competent authority, may at his discretion cancel the contract or invoke any of the penalties for the breach of contract provided in the agreement. The contractor shall also be liable for and pecuniary liability arising or account of any violation by him of the provisions of the Act.

2. Contractor shall during the currency of the contract ensure engagement of the apprentices in the categories mentioned below who may be assigned to him by the Director of Employment and Training / State apprenticeship Adviser, Tamil Nadu. The contractor shall train them as required under the Apprentice Act 1961, and the rules made there under, and shall be, responsible for all obligations of the employer under the said Act including the liability to make payments to the apprentices as required under the said Act.

Sl. No.	Value of Contract		Category	No. to be appointed
1.	Rs. 1 lakhs and upto	1.	Building Constructor	1
	Rs. 3 lakhs	2.	Brick layer	1
2.	Above Rs. 3 lakhs and	1.	Building Constructor	1
	upto Rs. 10 lakhs	2.	Brick layer	1
		3.	Diploma holder in Civil Engineering	1
3.	Above Rs. 10 lakhs and	1.	Building Constructor	1
	upto Rs. 50 lakhs	2.	Brick layer	1
		3.	B. E. (CIVIL) or equivalent degree holder	1

Contractor

No of corrections

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3. Unless the contractor has been exempted from engagement of apprentices by the Director of Employment and Training / State Apprenticeship Adviser, a certificate to the effect that the contractor has discharged his obligation under the said Act, satisfactorily should be obtained from the Director of Employment and Training / State Apprenticeship Adviser and the same should be produced by the contractor for final payment in the settlement of the contract.

TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD CONDITIONS FOR LIME

1. The lime shall be burnt from shells, lime stone or kanker as specified and shall be carefully free from earth impurities.

2. The process of burning shall be carried out in such kilns and, with such fuel of the Executive Engineer may approve.

3. In all cases, the lime shall be delivered at the site of the mortar mill quite fresh, i.e., within seven days of the date on which it was drawn fresh from the kiln. In case where compliance herewith is not possible due to seasonal closure of kilns, written permission of the Executive Engineer is necessary before stored slacked lime can be used.

4. The lime shall be slacked, if so required in the presence of a departmental representative before being put into the mill. All impurities, ashes, or pieces improperly or carelessly burnt shall be screened or picked out before slacking and removed at once from the work.

5. The lime shall then be screened through sieve of such size as the Executive Engineer may direct and all stuff that will not pass through the sieve shall be rejected. In the absence of separate orders under this clause a wire screen of 94 meshes to the square inch shall be used, except for plastering second and third coats or for any fine work defined accordingly by specification in which case the lime is to pass through a sieve of 324 meshes to the square inch.

6. Lime which has perished or which has been damaged by damp, rain or inter mixture of dirt, or which has become partially air-locked, shall on no account be used on the works but shall be removed at once from the site. Lime which given a residue of more than 10 percent by weight when tested hydrochloric acid shall be rejected.

7. Lime is to be obtained from the source defined in the Descriptive Specification sheet.

8. The Lime at work site is to be protected from weather action by being kept in a weather proof shed with in previous floor and sides.

When time permits, the following test is to be made for stone limes :

The lime to be tested shall be passed through a sieve having 64 meshes per square inch. Briquettes shall be made of 1 lime 2 sand adding sufficient water to the lime till a stiff paste is formed, this stiff paste is to be well pressed down into the mould, which is to rest on a sheet of glass. The upper surface of the mortar in the mould shall be struck off level with a trowel. The mould shall then be laid aside till the briquette attains initial set. After this period, the briquette (still in the mould) shall be placed in wet sand for two days to allow it to get gradually. It shall then be taken out of its mould, placed in water for 25 days taken out and allowed to dry for 24 hours and then finally tested. The briquette, which is to have cross sectional area of one square inch, should take a minimum tensile strain of 20 lb. If less than this the Executive Engineer shall have the right to reject the lime, and the contractor shall then remove the rejected materials at once from the work site.

Note: The two general classes of lime are

(a) Fat limes : and (b) Hydraulic limes. Shell lime comes under class (a) and is largely used for plaster and whitewash limes from kankar and limestone come under class (b) and should always be used for masonry work unless written permission of the Executive Engineer has been given to the use of shell lime.

Contractor

No of corrections

Superintending Engineer

Non hydraulic lime mortar should not be used in well locations. Works which are likely to be exposed to the action of water within a month from date of completion should be constructed with a cement mortar or a surki mortar if the latter is found to be sufficiently hydraulic.

10. Vide instruction in note 2 under 'Materials'. which shall apply.

DESCRIPTIVE SPECIFICATION SHEET

Sl. No.	Materials	Sources from where item is to be obtained	Approximate Lead
1.	Sand for mortar		
2.	Sand for Filling	.	
3.	Hard broken stone of different sizes		
4.	Rough Stone and Bond Stone	.	
5.	Brick, Brick jelly Flyash Brick of size 23cm x 11cm x 7cm		
6	Country Bricks of size 8 ³ / ₄ x4 ¹ / ₄ x2"		
7.	Pressed tiles		
8.	Gravel		
9.	Lime		

BRAND NAMES OF THE PAINTS TO BE USED FOR THE CONSTRUCTION OF SLUM TENEMENTS

Sl. No.	Name of the Paint Company	Brand Name of the Paint class
1.	British paints	Parrot
2.	Asian paints	Three Mangoes
3.	Goodlass	Glossolite
4.	Jonson and Nicholson	Jensolin
5.	Shalimar	Durolac
6.	I. C. I.	Duwel
7.	Blundel	Kinglac

Contractor

No of corrections

Superintending Engineer

SCHEDULE 'B'
LIST OF DRAWINGS

Serial Number	Drawing Number	Description	Remarks
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SCHEDULE – A

SCHEDULE OF APPROXIMATE QUANTITIES TO ACCOMPANY THE TENDER FOR THE WORK OF “Supplying and fixing Fire fighting and lightening arrester arrangements for the work of Construction of 504 nos of tenements at Allikuttai Eri in Salem District under HFA-AHP”

(A) The quantities here given are those upon which the lumpsum tender cost of the work is based. But they are subject to alternation, omissions, deductions or additions as provided for in the conditions of this contract and not necessarily shown the actual quantities of work to be done. The unit rates noted below are those governing payment for extras or deductions or omissions according to the conditions of the contract as set forth in the preliminary specifications of the detailed standard specifications and other conditions of the specification of this contract.

(B) It is to be expressly understood that the measured work is to be taken net (Not withstanding) any custom of practice to the contrary according to the actual quantities where in place and finished according to the drawings or as may be ordered from time to time by the Executive Engineer and the cost calculated by measurement or weight at the respective prices, without any additional charges for the necessary contingent works connected herewith. The rates quoted are for works in site and complete in every aspects.

Contractor

No of corrections

Superintending Engineer

Name of work : Supplying and fixing Fire fighting and lightening arrester arrangements for the work of Construction of 504 nos of tenements at Allikuttai Eri in Salem District under HFA-AHP

Sl. No.	Qty.	Description of work	Rate	Unit	Amount
			(Both in figures and wording)		
1	2	3	4	5	6
Basic Rate Quotated for Exclusive of GST					
	A		FIRE PROTECTION EQUIPMENTS		
1	35.00	Nos	Supply of Hydraulic Hose reel drum completed with 180 degree swinging type drum with 19mm dia Rubber braided hose of 30m length and Shut off nozzle, with necessary fittings etc.complete as per IS:884:85	1 no (each)	
2	35.00	Nos	Supply of Fire Hydrant valve G.M with 75mm flanged inlet and 63 mm female single instantaneous outlet complete with Lug & chain as per IS:5290. Hydrostatically tested to 21 Kgf/cm ² of pressure having a flow a flow rate of 900 LPM at 7 Kgf/m ² ISI MARKED	1 no (each)	
3	20.00	Nos	Supply of Fire hose conforming to IS:636,63mm dia,15 mtrs length with gunmetal heavy duty 63 mm pair of male and female couplings	1 no (each)	

Contractor

No of corrections

Superintending Engineer

4	20.00	Nos	Supply of Double Door Hose cabinet to accommodate one piece of hose pipe along with one pair of male and female coupling and one branch pipe. The cabinet is made of 18swg M.S. Sheet, glass fronted with hinged door and lock. (Custom made) 1.5 ft x1.5ft size		1 no (each)	
5	20.00	Nos	Supply of Gunmetal branch pipe, with male threaded nozzle of 20mm and male instantaneous inlet of 63mm dia as per IS: 903:93		1 no (each)	
6	5.00	Nos	Supply of Fire Brigade inlet connection with 2Nos, 63 mm dia built-in Gun metal Non-return valves instantaneous coupling type arranged on 100mm dia etc. Pipe manifold shall be connected to wet riser main. for external water source		1 no (each)	
	B		PUMP ROOM ACCESSORIES:			
7			Supply of Butterfly valve slim seal standard lever operated type confirming to IS 13039 with required flanges, nuts, bolts etc - C.I - Heavy ISI - To suit the system			
a	2.00	Nos	100NB		1 no (each)	
8			Supply of Non return valve with required flanges, nuts, bolts etc - C.I - Heavy ISI - To suit the system			
a	5.00	Nos	100 NB		1 no (each)	
9			Supply of Ball Valve- to suit the system			

Contractor

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a	40.00	Nos	25NB		1 no (each)	
10	1.00	Nos	Motor Control Panel (Custom Made) for the Fire pump with required Enclosure, On/Off switches and indicating lights. The panel shall duly painted with proper anti-corrosive lacquer and is of mounting type with all accessories as required etc - Automatic Panel 10 HP		1 no (each)	
11	5.00	Nos	Supply of dial type Pressure gauge (4" Dial)		1 no (each)	
12	1.00	Nos	Fire Hydrant Main Pump 15 HP with 40m head Kriloskar, 900LPM, 3.5kg/cm ²		1 no (each)	
13	5.00	Nos	Supply of Pressure Release valve - to suit the system		1 no (each)	
14	5.00	Nos	Supply of single acting Air Release valve –heavy - with screwed inlet 20mm dia etc. To suit the system.		1 no (each)	
15	5.00	Nos	Supply of single Pressure switch ,To suit the system.		1 no (each)	
	C		EXTERIOR AND INTERIOR PIPINGS			
16			Above Ground Piping: Supply of M.S ‘B’ class pipes confirming to IS: 1239 part-I with malleable specials confirming to IS: 1239 part-II, such as elbows, reducers, flanges etc. Including threading, cutting, welding, fixing in/on walls, ceiling. (Quantities are based on assumption only actuals will be billed)			
a	460.00	RM	100 NB		1RM(One running	

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					metre)	
17	460.00	Lot	Heavy Supports, Clamps, Washers and angles including Bolts and Nuts		Lot	
18	460.00	Lot	Painting of Fire hydrant pipe with one coat of primer and two coats of synthetic enamel paint of approved colour/ shade.		Lot	
	D		MANUAL FIRE ALARM SYSTEM			
19	5.00	Nos	Supply, installation, testing and commissioning of Micro Processor based Conventional 12 Zone Fire Alarm Control Panel having the rating of 24 volt DC power supply, consisting 230 / 24 volt SMPS unit, 2 Nos. of 12 volt, 7 AH standby batteries, suitably mounted on wall using fixing accessories like screws, plug, clamps and etc., as per standard methods and as directed by the Departmental Officers.			
20	35.00	Nos	Supply, installation, testing and commissioning of Manual Call Point (MCP) providing on wall using fixing accessories like screws, plug, clamps and etc., as per standard methods and as directed by the Departmental Officers. (Make: Ravel / Equivalent).			
21	35.00	Nos	Supply, installation, testing and commissioning of Electronic Hooter / Sounder providing on wall using fixing accessories like screws, plug, clamps and etc., as per standard methods and as directed by the Departmental Officers (Make: Ravel / Equivalent)		1 no (each)	

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22	350.00	RM	Supply and laying of FRLS PVC insulated 2 core 1.5 sq.mm. Armoured Copper Cable on ceiling / wall using fixing accessories like screws, plug, clamps, etc., as per standard methods and as directed by the Departmental Officers.		1RM(One running metre)	
23	350.00	RM	supplying and fixing PVC tube 3/4" as per specification etc., complete in all respect as directed by the departmental officers.		1RM(One running metre)	
	E		LIGHTENING ARRESTER			
24			Design and supply of Air termination Supply and design testing of indelec protection controlled early streamer emission lighting conductor equipped with a tinner copper central pick up rod full electrical continuity between the tip and the earth point. Fully autonomous (no battery no external power supply required) collect energy through a lower services of electrodes. Timing of the stream emission controlled with an electronic device that detect the lightning trigger streamer (3.5KV and 20A) manufactured as per 17-102. dedicated tester available for maintenance purpose. Tested in high voltage laboratory CPRI as well as in real lightning conditions (report available on request)			
a	1.00	Nos	Make: indelec prevention 2 Model :S:46m Radius for level		1 no (each)	
b	1.00	Nos	Make: indelec prevention 2 Model :L:86m Radius for level		1 no (each)	

Contractor

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c	2.00	Nos	Supply of standard / Special Mounting Structure of height 4.5 mts. Pipe, and 300 x 300 x 8mm MS plate, 3 mts. 48mm OD class C GI outer pipe, 1.8 mtr, 38mm OD inner pipe, for roof mounting on.		1 no (each)	
25			Supply of down conductor			
a	70.00	RM	Supply and run of 25mm x 6mm GI Flat Down Conductor with necessary clamps / supports on wall/ floor / ground for earth connection.		1RM(One running metre)	
b	2.00	Nos	Supply of test Link Box for each Down conductor in order to disconnect the earth termination system to enable measurement of resistance.		1 no (each)	
Total for Basic Amount for Exclusive of GST						
For GST @ 18 %						
Total for including GST						

Contractor

No of corrections

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